

CHEMOSPHERE

Contents and Author Index
Volume 38, 1999



PERGAMON

EDITORS

CHEMISTRY AND BIOCHEMISTRY

Mr D. W. Kuehl

U.S. Environmental Protection Agency, Duluth, MN 55804, U.S.A.

Fax: (1) 218 720 5539; E-mail: kuehl.douglas@epamail.epa.gov

Professor Dr M. Oehme

Organic Analytical Chemistry, University of Basle, IWB/GSA, Neuhausstr 31, CH-4057 Basel, Switzerland

Fax: (41) 61 639 2300

ECOTOXICOLOGY

Professor Dr J. P. Giesy

Department of Zoology, Michigan State University, MI 48824-1115, U.S.A.

Fax: (1) 517 432 2789; E-mail: Jgiesy@AOL.com

Professor W. Klein

Fraunhofer-Institut für Umweltchemie und Ökotoxikologie, Grafenschaft/Hochsauerland, D-57392 Schmallenberg, Germany

Fax: (49) 2972 30 2319; E-mail: profklein@iuct.fhg.de

Dr M. Yasuno

The University of Shiga Prefecture, School of Environmental Science, 2500 Hassaka, Hikone 522, Japan

Fax: (81) 749 28 8463; E-mail: yasuno@ses.usp.ac.jp

TOXICOLOGY, PHARMACOKINETICS AND EPIDEMIOLOGY

Professor S. Safe

Veterinary Physiology and Pharmacology, Texas A & M University, College Station, TX 77843, U.S.A.

Fax: (1) 409 845 6544; E-mail: ssafe@vetmed.tamu.edu

ATMOSPHERIC CHEMISTRY AND GLOBAL CHANGE

Professor M. A. K. Khalil

Department of Physics, Portland State University, PO Box 751, Portland, OR 97207-0751, U.S.A.

Fax: (1) 503 725 8550; E-mail: aslam@atmos.phy.pdx.edu

EDITORIAL BOARD

CHEMISTRY AND BIOCHEMISTRY

J. Albaiges, CID-CSIC, Barcelona, Spain

K. Ballschmiter, Universität Ulm, Ulm, Germany

R. E. Clement, Ministry of the Environment, Etobicoke, Ontario, Canada

D. W. Connell, Griffith University, Brisbane, Australia

H. Fiedler, University of Bayreuth, Bayreuth, Germany

W. Giger, Swiss Federal Institute of Technology, Dübendorf, Switzerland

H. P. Hagenmaier, University of Tübingen, Tübingen, Germany

O. J. Hao, University of Maryland at College Park, MD, U.S.A.

R. A. Hites, Indiana University, Bloomington, IN, U.S.A.

R. C. Lao, Environment Canada, Ottawa, Canada

D. Lenoir, GSF Institut für Ökologische Chemie, Neuherberg, Germany

D. Mackay, University of Toronto, Toronto, Canada

A. A. Moghissi, PO Box 7166, Alexandria, VA, U.S.A.

J. M. Novak, USDA Coast Plains SML, Water and Plant Research Center, Florence, SC, U.S.A.

H. Parlar, Technische Universität München, Freising-Weihenstephan, Germany

C. Rappe, University of Umeå, Umeå, Sweden

A. Sabljic, Institute Rudjer Boskovic, Zagreb, Croatia

P. R. Wallinöfer, Bayerische Landesanstalt für Ernährung, München, Germany

V. Zitko, Biological Station, St Andrews, Canada

ECOTOXICOLOGY

G. T. Ankley, United States Environmental Protection Agency, Duluth, MN, U.S.A.

S. M. Bartell, Senes Oak Ridge Inc., Oak Ridge, TN, U.S.A.

D. Calamari, Università degli Studi di Milano, Milan, Italy

R. T. Digiulio, Duke University, Durham, NC, U.S.A.

A. Fliedner, Fraunhofer-Institut für Umweltchemie und Ökotoxikologie, Schmallenberg, Germany

P.-D. Hansen, Technische Universität Berlin, Berlin, Germany

P. F. Landrum, Great Lakes Environmental Research Laboratory, Ann Arbor, MI, U.S.A.

R. Nagel, Institut für Hydrobiologie, Dresden, Germany

D. Tillitt, United States Department of the Interior, Columbia, MO, U.S.A.

TOXICOLOGY, PHARMACOKINETICS AND EPIDEMIOLOGY

Y. Masuda, Daiichi College of Pharmaceutical Sciences, Fukuoka, Japan

W. Mucke, Technical University of Munich, Munich, Germany

H. Nakazawa, Hoshi University, Tokyo, Japan

Ch. Schlatter, University of Zurich, Schwerzenbach, Switzerland

M. van den Berg, University of Utrecht, Research Institute of Technology, Utrecht, The Netherlands

ATMOSPHERIC CHEMISTRY AND GLOBAL CHANGE

V. P. Aneja, North Carolina State University, Raleigh, NC, U.S.A.

P. Brimblecombe, University of East Anglia, Norwich, U.K.

C. I. Davidson, Carnegie Mellon University, Pittsburgh, PA, U.S.A.

R. Harriss, University of New Hampshire, Durham, NH, U.S.A.

L. Husain, University of Albany, Albany, NY, U.S.A.

D. Kammen, The Woodrow Wilson School of Public & International Affairs, Princeton University, Princeton, NJ, U.S.A.

V. W. J. H. Kirchhoff, Instituto Nacional de Pesquisas Espaciais (INPE), São José dos Campos, S.P., Brazil

H. Pöppel, Fraunhofer Institute for Atmospheric Environmental Research, Garmisch-Partenkirchen, Germany

D. C. Parashar, National Physical Laboratory, New Delhi, India

S. A. Penkett, University of East Anglia, Norwich, U.K.

R. A. Rasmussen, Oregon Graduate Institute, PO Box 91000 Portland, OR, U.S.A.

W. Seiler, Fraunhofer Institute for Atmospheric Environmental Research, Garmisch-Partenkirchen, Germany

LIST OF CONTENTS

Number I

	v	Contributors to this issue
D. Neupane and J.-W. Park	1	Binding of dialkylated disulfonated diphenyl oxide surfactant onto alumina in the aqueous phase
M. Ott, K. Failing, U. Lang, Ch. Schubring, H.-J. Gent, S. Georgii and H. Brunn	13	Contamination of human milk in Middle Hesse, Germany—A cross-sectional study on the changing levels of chlorinated pesticides, PCB congeners and recent levels of nitro musks
M. A. Fernández, C. Alonso, Ma. J. González and L. M. Hernández	33	Occurrence of organochlorine insecticides, PCBs and PCB congeners in waters and sediments of the Ebro river (Spain)
A. Zsolnay, E. Baigar, M. Jimenez, B. Steinweg and F. Saccomandi	45	Differentiating with fluorescence spectroscopy the sources of dissolved organic matter in soils subjected to drying
Yi Wang, Zijian Wang, Chunxia Wang and Wenhua Wang	51	Uptake of weakly hydrophobic nitroaromatics from water by semipermeable membrane devices (SPMDs) and by goldfish (<i>Carassius auratus</i>)
R. P. H. Schmitz, C. Kretkowski, A. Eisenträger and W. Dott	67	Ecotoxicological testing with new kinetic <i>Photorhabdus luminescens</i> growth and luminescence inhibition assays in microtitration scale
R. P. H. Schmitz, A. Eisenträger and W. Dott	79	Agonistic and antagonistic toxic effects observed with miniaturized growth and luminescence inhibition assays
J. Klasmeier, A. Mühlebach and M. S. McLachlan	97	PCDD/Fs in textiles—II. Transfer from clothing to human skin
E. Abad, J. Caixach and J. Rivera	109	Dioxin like compounds from municipal waste incinerator emissions: assessment of the presence of polychlorinated naphthalenes
J. M. Southwood, D. C. G. Muir and D. Mackay	121	Modelling agrochemical dissipation in surface microlayers following aerial deposition
J. Virtapohja and R. Alén	143	Behaviour of EDTA in marine microcosms
L. Nguyen, R. Kho, W. Bae and R. K. Mehra	155	Glutathione as a matrix for the synthesis of CdS nanocrystallites
S. Singh, J. S. Singh and A. K. Kashyap	175	Methane consumption by soils of dryland rice agriculture: Influence of varieties and N-fertilization
M. J. Citra	191	Estimating the pK_a of phenols, carboxylic acids and alcohols from semi-empirical quantum chemical methods
R. Mirza	207	A review of the role of plastics in energy recovery
M. Schneider and K. Ballschmiter	233	C ₃ –C ₁₄ -alkyl nitrates in remote South Atlantic air
F. Calevro, C. Filippi, P. Deri, C. Albertosi and R. Batistoni	245	Erratum: Toxic effects of aluminium, chromium and cadmium in intact and regenerating freshwater planarians

Number 2

v Contributors to this issue

V. Mäki, K. Hänninen, J. Knuutinen and J. Hyötyläinen	247	Pyrolysis of humic acids from digested and composted sewage sludge
D. Haynes, J. F. Müller and M. S. McLachlan	255	Polychlorinated dibenzo- <i>p</i> -dioxins and dibenzofurans in Great Barrier Reef (Australia) dugongs (<i>Dugong dugon</i>)
I. F. Paterson, B. Z. Chowdhry and S. A. Leharne	263	Predicting surfactant modified soil/water distribution coefficients using micellar HPLC
V. Berg, A. Polder and J. U. Skaare	275	Organochlorines in deep-sea fish from the Nordfjord
Hong Liu, Shao'an Cheng, Jianqing Zhang, Chunan Cao and Shukong Zhang	283	Titanium dioxide as photocatalyst on porous nickel: adsorption and the photocatalytic degradation of sulfosalicylic acid
E. M. Lores, R. A. Snyder and J. R. Pennock	293	The effect of humic acid on uptake/adsorption of copper by a marine bacterium and two marine ciliates
H. Kiviranta, R. Purkunen and T. Vartiainen	311	Levels and trends of PCDD/Fs and PCBs in human milk in Finland
T. Wiesmüller and B. Schlatterer	325	PCDDs/PCDFs and coplanar PCBs in eels (<i>Anguilla anguilla</i>) from different areas of the rivers Havel and Oder in the state of Brandenburg (Germany)
L. K. Granier, P. Lafrance and P. G. C. Campbell	335	An experimental design to probe the interactions of dissolved organic matter and xenobiotics: bioavailability of pyrene and 2,2',5,5'-tetrachlorobiphenyl to <i>Daphnia magna</i>
T. Beitz, W. Bechmann and R. Mitzner	351	Investigation on the photoreactions of nitrate and nitrite ions with selected azarenes in water
W. J. Walker, R. P. McNutt and C. K. Maslanka	363	The potential contribution of urban runoff to surface sediments of the Passaic River: sources and chemical characteristics
T. Oesterreich, U. Klaus, M. Volk, B. Neidhart and M. Spiteller	379	Environmental fate of amitrole: influence of dissolved organic matter
K. Laniewski, H. Borén and A. Grimvall	393	Fractionation of halogenated organic matter present in rain and snow
N. Fukuzaki, T. Oshio, I. Noguchi, M. Matsumoto, S. Morisaki, M. Oohara, M. Tamaki and T. Hiraki	411	Spatial differences of chemical features of atmospheric deposition between rainy season and winter in the areas facing to the Japan Sea, Japan
Chung-Te Lee, Neng-Huei Lin, Wen-Chuan Hsu, Yun-Li Chang and Shyh-Yuh Chang	425	Local circulation and aerosol water-soluble ions—a case study in Taiwan during Mei-yu season
D. Čeburnis, E. Steinnes and K. Kvietkus	445	Estimation of metal uptake efficiencies from precipitation in mosses in Lithuania
J. Hellou, D. Mackay and J. Banoub	457	Levels, persistence and bioavailability of organic contaminants present in marine harbor sediments impacted by raw sewage

Number 3

v Contributors to this issue

- R. Bargagli, J. C. Sanchez-Hernandez and F. Monaci** 475 Baseline concentrations of elements in the Antarctic macrolichen *Umbilicaria decussata*
- C. A. Bouwman, E. Van Dam, K. M. Fase, J. G. Koppe, W. Seinen, H. H. W. Thijssen, C. Vermeer and M. Van den Berg** 489 Effects of 2,3,7,8-tetrachlorodibenzo-*p*-dioxin or 2,2',4,4',5,5'-hexachlorobiphenyl on vitamin K-dependent blood coagulation in male and female WAG/Rij-rats
- B. Jiménez, M. J. González, L. M. Hernández, E. Eljarrat, J. Rivera and M. C. Fossi** 507 2,3,7,8-substituted PCDDs and PCDFs in sea lion (*Otaria flavescens*) skin biopsies from two south-western Atlantic populations
- P. Conte and A. Piccolo** 517 High pressure size exclusion chromatography (HPSEC) of humic substances: molecular sizes, analytical parameters, and column performance
- R. Weber and H. Hagenmaier** 529 Mechanism of the formation of polychlorinated dibenzo-*p*-dioxins and dibenzofurans from chlorophenols in gas phase reactions
- E. J. Hoekstra, E. W. B. de Leer and U. A. Th. Brinkman** 551 Mass balance of trichloroacetic acid in the soil top layer
- Jiasheng Cao, Liping Wei, Qingguo Huang, Liansheng Wang and Shuokui Han** 565 Reducing degradation of azo dye by zero-valent iron in aqueous solution
- J. Kurz and K. Ballschmiter** 573 Vapour pressures, aqueous solubilities, Henry's law constants, partition coefficients between gas/water (K_{gw}), *n*-octanol/water (K_{ow}) and gas/*n*-octanol (K_{go}) of 106 polychlorinated diphenyl ethers (PCDE)
- B. E. Berg, H. S. Lund, A. Kringstad and A. L. Kvernheim** 587 Routine analysis of hydrocarbons, PCB and PAH in marine sediments using supercritical CO₂ extraction
- J. M. F. Martins and A. Mermoud** 601 Transport of rimsulfuron and its metabolites in soil columns
- Ming-Chun Lu, Jong-Nan Chen and Kuo-Tai Chang** 617 Effect of adsorbents coated with titanium dioxide on the photocatalytic degradation of propoxur
- V. Zitko** 629 Qualitative determination of 10,10'-oxybisphenoxarsine and decabromodiphenyl ether in plastics
- Y. Rozen, A. Nejdat, K.-H. Gartemann and S. Belkin** 633 Specific detection of *p*-chlorobenzoic acid by *Escherichia coli* bearing a plasmid-borne *fcbaA::lux* fusion
- A. Górna-Binkul and B. Buszewski** 643 The sorption of airborne pollutants on natural and synthetic surfaces: correlation to the mathematical models
- F. Godoy, P. Zenteno, F. Cerda, B. González and M. Martínez** 655 Tolerance to trichlorophenols in microorganisms from a polluted and a pristine site of a river
- C. S. Poon and Z. Q. Chen** 663 Comparison of the characteristics of flow-through and flow-around leaching tests of solidified heavy metal wastes
- N. Følsvik, J. A. Berge, E. M. Brevik and M. Walday** 681 Quantification of organotin compounds and determination of imposex in populations of dogwhelks (*Nucella lapillus*) from Norway

Number 4

v Contributors to this issue

Song Wen-Lu, Huang Qing-Guo and Wang Lian-Sheng	693	β -cyclodextrin (β -CD) influence on the biotoxicities of substituted benzene compounds and pesticide intermediates
G. Boeije, R. Corstanje, A. Rottiers and D. Schowanek	699	Adaptation of the CAS test system and synthetic sewage for biological nutrient removal—I. Development of a new synthetic sewage
A. Rottiers, G. Boeije, R. Corstanje, K. Decraene, T. C. J. Feijtel, E. Matthijs and D. Schowanek	711	Adaptation of the CAS test system and synthetic sewage for biological nutrient removal—II. Design and validation of test units
J.-M. Delpuech, B. Legallet, O. Terrier and P. Fouillet	729	Modifications of the sex pheromonal communication of <i>Trichogramma brassicae</i> by a sublethal dose of deltamethrin
A. K. Bhattacharjee and P. Dureja	741	Light induced transformation of tribenuron-methyl
N. S. Kudryasheva, I. Y. Kudinova, E. N. Esimbekova, V. A. Kratasyuk and D. I. Stom	751	The influence of quinones and phenols on the triple NAD(H)-dependent enzyme systems
R. E. Alcock, R. Gemmill and K. C. Jones	759	Improvements to the UK PCDD/F and PCB atmospheric emission inventory following an emissions measurement programme
K. Laniewski, J. Dahlén, H. Borén and A. Grimvall	771	Determination of group parameters for organically bound chlorine, bromine and iodine in precipitation
J. Dahlén, M. Bäckström, J. Ephraim, H. Borén and B. Allard	783	Determination of the molecular weight of fulvic acids by UV/VIS spectroscopy
R. H. A. Brown, J. N. Cape and J. G. Farmer	795	Chlorinated hydrocarbons in Scots pine needles in northern Britain
Chon-Lin Lee and Li-Jung Kuo	807	Quantification of the dissolved organic matter effect on the sorption of hydrophobic organic pollutant: application of an overall mechanistic sorption model
Shao-Pin Yo	823	Analysis of volatile fatty acids in wastewater collected from a pig farm by a solid phase microextraction method
P. Peralta-Zamora, A. Kunz, S. Gomes de Moraes, R. Pelegrini, P. de Campos Moleiro, J. Reyes and N. Durán	835	Degradation of reactive dyes—I. A comparative study of ozonation, enzymatic and photochemical processes
M. Vitas, K. E. Smith, J. Plavec, J. Kesselmeier, T. Pajić, A. Ferlan, D. Žigon, S. L. Kelly and R. Komel	853	Induction of steroidal hydroxylase activity by plant defense compounds in the filamentous fungus <i>Cochliobolus lunatus</i>
A. Hilmi, J. H. T. Luong and A.-L. Nguyen	865	Utilization of TiO ₂ deposited on glass plates for removal of metals from aqueous wastes
C. N. Smith, W. R. Payne Jr., J. D. Pope Jr., J. H. Winkie and R. S. Parrish	875	A field study to compare performance of stainless steel research monitoring wells with existing on-farm drinking water wells in measuring pesticide and nitrate concentrations

Yan Cheng-nong, Liu Yi, Wang Tian-zhi, Tan Zhi-qun, Qu Song-sheng and Shen Ping	891	Thermochemical studies of the toxic actions of heavy metal ions on <i>Rhizopus nigricans</i>
L. Morselli, M. Cecchini, E. Grandi, A. Iannuccilli, L. Barilli and P. Olivieri	899	Heavy metals in atmospheric surrogate dry deposition
Q. Yu, Y. Chaisuksant and D. Connell	909	A model for non-specific toxicity with aquatic organisms over relatively long periods of exposure time
F. Kasai	919	Shifts in herbicide tolerance in paddy field periphyton following herbicide application

Number 5

v Contributors to this issue

P.-A. Bergqvist, B. Strandberg and C. Rappe	933	Lipid removal using semipermeable membranes (SPMs) in PCDD and PCDF analysis of fat-rich environmental samples
H. Vallius	945	Anthropogenically derived heavy metals in recent sediments of the Gulf of Finland, Baltic Sea
K. Tagami and S. Uchida	963	Chemical transformation of technetium in soil during the change of soil water conditions
R. Franzén, K. Tanabe and M. Morita	973	Ring-chain tautomerism of chlorinated hydroxyfuranones and reaction with nucleosides
T. Iida, H. Hirakawa, T. Matsueda, S. Takenaka, M.-L. Yu and Y.-L. Leon Guo	981	Recent trend of polychlorinated dibenzo- <i>p</i> -dioxins and their related compounds in the blood and sebum of Yusho and Yu-cheng patients
M. Schuhmacher, J. L. Domingo, J. M. Llobet, H. Kiviranta and T. Vartiainen	995	PCDD/F concentrations in milk of nonoccupationally exposed women living in southern Catalonia, Spain
C. S. Poon, Q. Huang and P. C. Fung	1005	Degradation kinetics of cuprophenyl yellow RL by UV/H ₂ O ₂ /ultrasonication (US) process in aqueous solution
S. Y. Yuan, C. J. Su and B. V. Chang	1015	Microbial dechlorination of hexachlorobenzene in anaerobic sewage sludge
H. Pettersen, J. Axelman and D. Broman	1025	The relative contribution of spatial-, sampling- and analytical variation to the PAH and PCB concentrations in Baltic Sea sediments
B. Stöffler and G. Luft	1035	Oxidative degradation of <i>p</i> -toluenesulfonic acid using hydrogen peroxide
T. L. Propst, R. L. Lochmiller, C. W. Qualls, Jr. and K. McBee	1049	In situ (mesocosm) assessment of immunotoxicity risks to small mammals inhabiting petrochemical waste sites
J. Lappalainen, R. Juvonen, K. Vaajasaari and M. Karp	1069	A new flash method for measuring the toxicity of solid and colored samples
N. A. Green, A. A. Meharg, C. Till, J. Troke and J. K. Nicholson	1085	Degradation of 4-fluorobiphenyl in soil investigated by ¹⁹ F NMR spectroscopy and ¹⁴ C radiolabelling analysis

L. Machado Mesa, E. Peña Méndez, M. Sánchez Sánchez and F. García Montelongo	1103	Interpretation of heavy metal data from mussel by use of multivariate classification techniques
B. S. F. Wong, P. K. S. Lam, Lihong Xu, Yongyuan Zhang and B. J. Richardson	1113	A colorimetric assay from screening microcystin class compounds in aquatic systems
M. Schuhmacher, J. L. Domingo, J. M. Llobet, G. Lindström and H. Wingfors	1123	Dioxin and dibenzofuran concentrations in blood of a general population from Tarragona, Spain
T. Hyötyläinen and A. Oikari	1135	The toxicity and concentrations of PAHs in creosote-contaminated lake sediment
S. Malato, J. Blanco, C. Richter, B. Milow and M. I. Maldonado	1145	Solar photocatalytic mineralization of commercial pesticides: Methamidophos
P. Bonin and J.-C. Bertrand	1157	Involvement of bioemulsifier in heptadecane uptake in <i>Pseudomonas nautica</i>
A Fargašová, A. Bumbálová and E. Havránek	1165	Ecotoxicological effects and uptake of metals (Cu^+ , Cu^{2+} , Mn^{2+} , Mo^{6+} , Ni^{2+} , V^{5+}) in freshwater alga <i>Scenedesmus quadricauda</i>
N. J. Klier, R. J. West and P. A. Donberg	1175	Aerobic biodegradation of dichloroethylenes in surface and subsurface soils

Number 6

SPECIAL ISSUE—DEGRADATION PROCESSES IN THE ENVIRONMENT

	xi	Introduction
		<i>Homogeneous and heterogeneous degradation processes in the troposphere</i>
J. Peeters, S. Vandenberg, E. Piessens and V. Pultau	1189	H-atom abstraction in the reactions of cyclic polyalkenes with OH
J. Wenger, E. Porter, E. Collins, J. Treacy and H. Sidebottom	1197	Mechanisms for the chlorine atom initiated oxidation of dimethoxymethane and 1,2-dimethoxyethane in the presence of NOx
C. D. McGill, A. R. Rickard, D. Johnson and G. Marston	1205	Product yields in the reactions of ozone with Z-but-2-ene, E-but-2-ene and 2-methylbut-2-ene
B. Qi, Y. H. Zhang, Z. M. Chen, K. S. Shao, X. Y. Tang and M. Hu	1213	Identification of organic peroxides in the oxidation of C_1 - C_3 alkanes
H. Herrmann, B. Ervens, P. Nowacki, R. Wolke and R. Zellner	1223	A chemical aqueous phase radical mechanism for tropospheric chemistry
M. Bizjak, I. Grgić and V. Hudnik	1233	The role of aerosol composition in the chemical processes in the atmosphere
W.-U. Palm, M. Elend, H.-U. Krüger and C. Zetzsch	1241	Atmospheric degradation of a semivolatile aerosol-borne pesticide: reaction of OH with pyfirenox (an oxime-ether), adsorbed on SiO_2

Oxidation and photo-oxidation processes in the aqueous phase

- S. O. Pehkonen and Che-Jen Lin** 1253 Aqueous phase reactions of mercury with free radicals and chlorine: implications for atmospheric mercury chemistry
- X. Domènech and J. Peral** 1265 Kinetics of the photocatalytic oxidation of N(III) and S(IV) on different semiconductor oxides
- Yu Wang, Lin Fengkai, Lin Zhulu, Xu Zheng and Tang Yubin** 1273 Photolysis of anthracene and chrysene in aquatic systems
- J. Burhenne, M. Ludwig and M. Spiteller** 1279 Polar photodegradation products of quinolones determined by HPLC/MS/MS
- W. Butte, S. Schmidt and A. Schmidt** 1287 Photochemical degradation of nitrated musk compounds
- A. Schmidt and W. Butte** 1293 Photocatalytic degradation of reduction products of 2,4,6-trinitrotoluene (TNT)
- I. Kralj Cigić and L. Zupančič-Kralj** 1299 Changes in odour of Bartlett pear brandy influenced by sunlight irradiation

Biotransformation and biodegradation

- J. Combrisson and L. Jocteur Monrozier** 1305 Inefficiency of *Mycobacterium chlorophenolicum* PCP-1 to enhance mineralization of pentachloro-phenol in soil microcosms
- D. L. McNally, J. R. Mihelcic and D. R. Lueking** 1313 Biodegradation of mixtures of polycyclic aromatic hydrocarbons under aerobic and nitrate-reducing conditions
- J. Tharakan and J. A. Gordon** 1323 Cometabolic biotransformation of trinitrotoluene (TNT) supported by aromatic and non-aromatic cosubstrates
- A. Saito, T. Iwabuchi and S. Harayama** 1331 Characterization of genes for enzymes involved in the pheanthrene degradation in *Nocardioides* SP.KP7
- A. Žgajnar Gotvajn and J. Zogorc-Končan** 1339 Laboratory simulation of biodegradation of chemicals in surface waters: closed bottle and respirometric test
- T. Tisler, J. Zagorc-Končan, M. Ros and M. Cotman** 1347 Biodegradation and toxicity of wastewater from industry producing mineral fibres for thermal insulation
- H. Podgornik, I. Grgić and A. Perdih** 1353 Decolorization rate of dyes using lignin peroxi-dases of *Phanerochaete chrysosporium*
- H. Güsten** 1361 *Statistical and kinetic modelling of degradation processes*
Predicting the abiotic degradability of organic pollutants in the troposphere
- P. Gramatica, V. Consonni and R. Todeschini** 1371 QSAR study on the tropospheric degradation of organic compounds
- T. Mill** 1379 Predicting photoreaction rates in surface water
- K. Dercová, B. Vrana and S. Baláz** 1391 A kinetic distribution model of evaporation, biosorption and biodegradation of polychlorinated biphenyls (PCBs) in the suspension of *Pseudomonas stutzeri*
- N. von Götz and O. Richter** 1401 Simulation of herbicide degradation in different soils by use of pedo-transfer functions (PTF) and non-linear kinetics

E. Rorije, H. Loonen, M. Müller, G. Klopman and W. J. G. M. Peijnenburg	1409	Evaluation and application of models for the prediction of ready biodegradability in the MITI-I test
R. W. Okey and M. C. Martis	1419	Molecular level studies on the origin of toxicity: identification of key variables and selection of descriptors
J. Slanina, H. M. ten Brink and A. Khlystov	1429	<i>Environmental management</i> Fate of products of degradation processes: consequences for climatic change
T. M. Tavares, M. Beretta and M. C. Costa	1445	Ratio of DDT/DDE in the All Saints Bay, Brazil and its use in environmental management
G. A. Makhov and N. M. Bazhin	1453	Methane emission from lakes
E. F. C. Griessbach and R. G. Lehmann	1461	Degradation of polydimethylsiloxane fluids in the environment—a review
		Number 7
	v	Contributors to this issue
M. Nilsson, Å Ingemarsson, J. R. Pedersen and J. O. Olsson	1469	Slow pyrolysis of birch (<i>Betula</i>) studied with GC/MS and GC/FTIR/FID
G. Gramss, K.-D. Voigt and B. Kirsche	1481	Oxidoreductase enzymes liberated by plant roots and their effects on soil humic material
M. Natangelo, S. Mangiapan, R. Bagnati, E. Benfenati and R. Fanelli	1495	Increased concentrations of nitrophenols in leaves from a damaged forestal site
Yun-Hwei Shen	1505	Sorption of natural dissolved organic matter on soil
B. Rothweiler and J.-D. Berset	1517	High sensitivity of ortho-substituted polychlorobiphenyls in negative ion mass spectrometry (NCI-MS): a comparison with EI-MS and ECD for the determination of regulatory PCBs in soils
C. Nerin, C. Domeño, J. I. García and A. del Alamo	1533	Distribution of Pb, V, Cr, Ni, Cd, Cu and Fe in particles formed from the combustion of waste oils
A.-I. Sadiki and D. T. Williams	1541	A study on organotin levels in Canadian drinking water distributed through PVC pipes
S. Hager and R. Bauer	1549	Heterogeneous photocatalytic oxidation of organics for air purification by near UV irradiated titanium dioxide
L. Le Campion, C. Giannotti and J. Ouazzani	1561	Photocatalytic degradation of 5-nitro-1,2,4-triazol-3-one NTO in aqueous suspension of TiO ₂ . Comparison with fenton oxidation
Kuen-Sheng Wang, Kung-Yuh Chiang, Shin-Ming Lin, Chi-Chang Tsai and Chang-Jung Sun	1571	Effects of chlorides on emissions of hydrogen chloride formation in waste incineration
J. Alvarez-Benedi, M. T. Tabernero, J. Atienza and S. Bolado	1583	A coupled model representing volatilisation and sorption of soil incorporated herbicides

H. Huang and A. Buekens	1595	Comparison of dioxin formation levels in laboratory gas-phase flow reactors with those calculated using the Shaub-Tsang mechanism
G. Witt and E. Trost	1603	Polycyclic aromatic hydrocarbons (PAHs) in sediments of the Baltic Sea and of the German coastal waters
N. von Götz, P. Nörtersheuser and O. Richter	1615	Population based analysis of pesticide kinetics
M. P. Sauvant, D. Pepin and E. Piccinni	1631	<i>Tetrahymena pyriformis</i> : a tool for toxicological studies. A review
J. W. Deneer, B. J. Budde and A. Weijers	1671	Variations in the lethal body burdens of organophosphorus compounds in the guppy
M. Wobst, H. Wichmann and M. Bahadir	1685	Surface contamination with PASH, PAH and PCDD/F after fire accidents in private residences
A. J. Hernandez, M. J. Adarve, A. Gil and J. Pastor	1693	Soil salination from landfill leachates: effects on the macro-nutrient content and plant growth of four grassland species
Liping Wei, Hongxia Yu, Jiaseng Cao, Yue Sun, Jianfang Fen and Liansheng Wang	1713	Determination and prediction of partition coefficient and toxicity for sulfonylurea herbicides and their degradation products

Number 8

v Contributors to this issue

K. Mayura, H. J. Huebner, M. R. Dwyer, K. S. McKenzie, K. C. Donnelly, L. F. Kubena and T. D. Phillips	1721	Multi-bioassay approach for assessing the potency of complex mixtures of polycyclic aromatic hydrocarbons
A. R. Isensee and A. M. Sadeghi	1733	Quantification of runoff in laboratory-scale chambers
G. Fischer, T. Müller, R. Ostrowski and W. Dott	1745	Mycotoxins of <i>Aspergillus fumigatus</i> in pure culture and in native bioaerosols from compost facilities
N. W. Shappell, G. L. Larsen and J. E. Bakke	1757	Identification of the major urinary and fecal metabolites of 3,5-dinitrobenzamide in chickens and rats
L. C. Paraiba, J. M. Carrasco and R. Bru	1763	Level IV fugacity model by a continuous time control system
M. Macleod and D. Mackay	1777	An assessment of the environmental fate and exposure of benzene and the chlorobenzenes in Canada
F. Roch and J.-C. Védry	1797	Modulation of metabolic activity prevents degradation of sorbed toluene
H. Behrendt, J. Altschuh, S. Sixt, J. Gasteiger, R. Hollering and T. Kostka	1811	A unified approach to exposure assessment by computer models for degradation reactions and soil accumulation: the triazine herbicide example
K. Tuppurainen and J. Ruuskanen	1825	A plausible mechanism for copper-catalyzed oxidative chlorophenol coupling reactions. Semi-empirical AM1 and Ab initio 3-21G molecular orbital studies

Kuen-Sheng Wang, Kung-Yuh Chiang, Shin-Ming Lin, Chi-Chang Tsai and Chang-Jung Sun	1833	Effects of chlorides on emissions of toxic compounds in waste incineration: study on partitioning characteristics of heavy metal
R. Weerasooriya and V. Priyadharshane	1851	Kinetics of cadmium-fulvic acid complexation
Y.-S. Shen and Y. Ku	1855	Treatment of gas-phase volatile organic compounds (VOCs) by the UV/O ₃ process
R. Nakagawa	1867	Estimation of mercury emissions from geothermal activity in Japan
N. Koivula and K. Hanninen	1873	Biodeterioration of cardboard-based liquid containers collected for fibre reuse
S. A. Jackman, C. J. Knowles and G. K. Robinson	1889	SACRED – A novel catalytic process for the environmental remediation of polychlorinated biphenyls (PCBS)
E. Eljarrat, J. Caixach, B. Jiménez, M. J. González and J. Rivera	1901	Polychlorinated naphthalenes in sediments from the Venice and Orbetello lagoons, Italy
G. Broker, P. Bruckmann and H. Gliwa	1913	Study of dioxin sources in North Rhine-Westphalia
L. Lazzari, L. Sperti, M. Salizzato and B. Pavoni	1925	Gas chromatographic determination of organic micro-pollutants in samples of sewage sludge and compost: behaviour of PCB and PAH during composting
H. Sugiyama, Y. Katagiri, M. Kaneko, T. Watanabe and T. Hirayama	1937	Chlorination of pyrene in soil components with sodium chloride under xenon irradiation
L. A. Walker, R. F. Shore, J. Wright and C. L. Wyatt	1947	Changes in PCB congener concentrations and profile in avian liver due to freeze-drying
J. K. Huwe, V. J. Feil, G. L. Larsen and C. Wiener	1957	Erratum. Metabolism and disposition of 1,4,7,8-tetrachloro-dibenzo- <i>p</i> -dioxin in rats
		Number 9
	v	Contributors to this issue
H. Vallius	1959	Heavy metal deposition and variation in sedimentation rate within a sedimentary basin in central Gulf of Finland
B. Brohon, C. Delolme and R. Gourdon	1973	Qualification of soils through microbial activities measurements: influence of the storage period on INT-reductase, phosphatase and respiration
Ziquing Ou, Lianqing Lia, Haiyan Jin, A. Yediler, Xia Jiang, A. Kettrup and Tieheng Sun	1985	Formation of soil macropores and preferential migration of linear alkylbenzene sulfonate (LAS) in soils
M. Bragadin, G. Perin, A. Iero, S. Manente, V. Rizzoli and G. Scutari	1997	An <i>in vitro</i> study on the toxic effects of nonylphenols (NP) in mitochondria
Zhaoyi Xu, Quanxing Zhang, Jinlong Chen, Liansheng Wang and G. K. Anderson	2003	Adsorption of naphthalene derivatives on hypercrosslinked polymeric adsorbents
M. Klare, G. Waldner, R. Bauer, H. Jacobs and J. A. C. Broekaert	2013	Degradation of nitrogen containing organic compounds by combined photocatalysis and ozonation

C. A. Staples, J. B. Williams, R. L. Blessing and P. T. Varineau	2029	Measuring the biodegradability of nonylphenol ether carboxylates, octylphenol ether carboxylates and nonylphenol
Chao-Yin Kuo and Shang-Lien Lo	2041	Oxidation of aqueous chlorobiphenyls with photo-Fenton process
K. Valters, A. Olsson, L. Asplund and A. Bergman	2053	Polychlorinated biphenyls and some pesticides in perch (<i>Perca fluviatilis</i>) from inland waters of Latvia
Y. Tsujimoto, T. Noda, M. Shimizu, H. Moriwaki and M. Tanaka	2065	Synthesis of regioisomeric dimethylbenzyl mercapturic acids anticipated from the metabolism of 1,2,3-trimethylbenzene
S. G. Dodard, A. Y. Renoux, J. Hawari, G. Ampleman, S. Thiboutot and G. I. Sunahara	2071	Ecotoxicity characterization of dinitrotoluenes and some of their reduced metabolites
O. Drzyzga, D. Bruns-Nagel, T. Gorontzy, K.-H. Blotevogel and E. von Löw	2081	Anaerobic incorporation of the radiolabeled explosive TNT and metabolites into the organic soil matrix of contaminated soil after different treatment procedures
J.-E. Oh, K.-T. Lee, J.-W. Lee and Y.-S. Chang	2097	The evaluation of PCDD/Fs from various Korean incinerators
S. F. Tahir and C. A. Koh	2109	Catalytic destruction of volatile organic compound emissions by platinum based catalyst
M. Gardner	2117	Dissolved phase speciation of zinc in the Humber estuary
S. Shojania	2125	The enumeration of isomeric structures for polychlorinated n-alkanes
S. M. Steinberg, C. E. Swallow and Wen Kai Ma	2143	Vapor phase sorption of benzene by cationic surfactant modified soil
S. L. Larson, C. A. Weiss Jr., B. L. Escalon and D. Parker	2153	Increased extraction efficiency of acetonitrile/water mixtures for explosives determination in plant tissues
D. Helmig, L. F. Klinger, A. Guenther, L. Vierling, C. Geron and P. Zimmerman	2163	Biogenic volatile organic compound emissions (BVOCs) I. Identifications from three continental sites in the U.S.
D. Helmig, L. F. Klinger, A. Guenther, L. Vierling, C. Geron and P. Zimmerman	2189	Biogenic volatile organic compound emissions (BVOCs) II. Landscape flux potentials from three continental sites in the U.S.

Number 10

v Contributors to this issue

K. Tuppurainen, M. Aatamila, P. Ruokojärvi, I. Halonen and P. Ruuskanen	2205	Effect of liquid inhibitors on PCDD/F formation. Prediction of particle-phase PCDD/F concentrations using PLS modelling with gas-phase chlorophenol concentrations as independent variables
S. Ishiwata and M. Kamiya	2219	Effects of humic acids on the inclusion complexation of cyclodextrins with organophosphorus pesticides

R. A. Abramovitch, Huang Bangzhou, D. A. Abramovitch and Song Jiangao	2227	<i>In situ</i> decomposition of PCBs in soil using microwave energy
J. R. Cagnon, A. L. M. Porto, A. J. Marsaioli, G. P. Manfio and S. Y. Eguchi	2237	First evaluation of the Brazilian microorganisms biocatalytic potential
Zhaoyi Xu, Quanxing Zhang, Jinlong Chen, Liansheng Wang and G. K. Anderson	2243	Microbial screening for the enantiospecific production of alkyl esters of 4-chloro-3-hydroxybutanoic acid
R. E. Alcock, A. Sweetman and K. C. Jones	2247	Assessment of organic contaminant fate in waste water treatment plants I: selected compounds and physico-chemical properties
R. Bruggemann, S. Pudenz, K. Voigt, A. Kaune and K. Kreimes	2263	An algebraic/graphical tool to compare ecosystems with respect to their pollution IV: comparative regional analysis by Boolean arithmetics
E. Argese, C. Bettiol, G. Giurin and P. Miana	2281	Quantitative structure-activity relationships for the toxicity of chlorophenols to mammalian submitochondrial particles
J.-P. Aguer and C. Richard	2293	Influence of the excitation wavelength on the photoinductive properties of humic substances
R. C. Corbella Tena and F. Garcia Montelongo	2303	Levels of polychlorinated biphenyls in <i>Patella piperata</i> from the coast of Fuerteventura (Canary Islands, Spain)
P. Maletzky, R. Bauer, J. Lahnsteiner and B. Pouresmael	2315	Immobilisation of iron ions on Nafion® and its applicability to the Photo-Fenton method
M. Engwall, B. Brunström, C. Näf and K. Hjelm	2327	Levels of dioxin-like compounds in sewage sludge determined with a bioassay based on EROD induction in chicken embryo liver cultures
N. Mažuran, V. Hršak, M. Tomić and D. Papeš	2345	Effects of CaCl ₂ and CaBr ₂ on the fecundity of <i>Planorbarius corneus</i> L.
P. Warwick, A. Hall, V. Pashley, J. Van der Lee and A. Maes	2357	Zinc and cadmium mobility in Podzol soils
G. Cornelissen, H. van Zuilen and P. C. M. van Noort	2369	Particle size dependence of slow desorption of <i>in situ</i> PAHs from sediments
J. A. Schramke, S. F. Murphy, W. J. Doucette and W. D. Hintze	2381	Prediction of aqueous diffusion coefficients for organic compounds at 25°C
Ying Ma and Jian-nian Yao	2407	Comparison of photodegradative rate of rhodamine B assisted by two kinds of TiO ₂ films
R. A. McKinney, R. J. Pruell and R. M. Burgess	2415	Ratio of the concentration of anthraquinone to anthracene in coastal marine sediments
Ying-Yuan Chen and Whei-May Grace Lee	2431	Hygroscopic properties of inorganic-salt aerosol with surface-active organic compounds
R. P. H. Schmitz, C. Kretowski, A. Eisenträger and W. Dott	2449	Erratum. Ecotoxicological testing with new kinetic <i>Photobacterium luminescens</i> growth and luminescence inhibition assays in microtitration scale

Number 11

v Contributors to this issue

M. A. M. Martins, M. H. Cardoso, M. J. Queiroz, M. T. Ramalho and A. M. O. Campos	2455	Biodegradation of azo dyes by the yeast <i>Candida zeylanoides</i> in batch aerated cultures
T. Iida, H. Hirakawa, T. Matsueda, S. Takenaka and J. Nagayama	2461	Polychlorinated dibenzo- <i>p</i> -dioxins and related compounds in breast milk of Japanese primiparas and multiparas
J. R. Pedersen, Å Ingemarsson and J. O. Olsson	2467	Oxidation of rapeseed oil, rapeseed methyl ester (RME) and diesel fuel studied with GC/MS
M. Schuhmacher, J. L. Domingo, J. M. Llobet, G. Lindström and H. Wingfors	2475	Dioxin and dibenzofuran concentrations in adipose tissue of a general population from Tarragona, Spain
Yun-Hwei Shen	2489	Sorption of humic acid to soil: the role of soil mineral composition
Ni'matuzahroh, M. Gilewicz, M. Guiliano and J. C. Bertrand	2501	<i>In-vitro</i> study of interaction between photooxidation and biodegradation of 2-methylphenanthrene by <i>Sphingomonas</i> SP. 2MPII
M. Kalina, H. Puxbaum, S. Tsakovski and V. Simeonov	2509	Time trends in the concentrations of lead in wet precipitation from rural and urban sites in Austria
T. Krutzler and R. Bauer	2517	Optimization of a Photo-Fenton prototype reactor
J. Harris	2533	The economic importance of chlor-alkali industry products, and alternatives to those products, to the Canadian economy
M. Rahouti, R. Steiman, F. Seigle-Murandi and L. P. Christov	2549	Growth of 1044 strains and species of fungi on 7 phenolic lignin model compounds
K. Hofmann and E. Hammer	2561	Anaerobic formation and degradation of toxic aromatic compounds in agricultural and communal sewage deposits
T. Yamamoto and A. Yasuhara	2569	Quantities of bisphenol A leached from plastic waste samples
L. Ramos, E. Eljarrat, L. M. Hernández, J. Rivera and M. J. González	2577	Comparative study of methodologies for the analysis of PCDDs and PDCFs in powdered full-fat milk. PCS, PCDD and PCDF levels in commercial samples from Spain
M. T. Kartel, L. A. Kupchik and B. K. Veisov	2591	Evaluation of pectin binding of heavy metal ions in aqueous solutions
Wang-Hsien Ding, Shin-Haw Tzing and Jun-Hui Lo	2597	Occurrence and concentrations of aromatic surfactants and their degradation products in river waters of Taiwan
J. Jan, M. Vrecl, A. Pogačnik and S. V. Bavdek	2607	Tissue distribution of planar and non-planar chlorobiphenyls, 4,4'-DDE and hexachlorobenzene in sheep and lambs
M. Thomsen, L. Carlsen and A. G. Rasmussen	2613	SAR/QSAR approaches to solubility, partitioning and sorption of phthalates
G. J. Zheng and B. J. Richardson	2625	Petroleum hydrocarbons and polycyclic aromatic hydrocarbons (PAHs) in Hong Kong marine sediments
R. Weber, T. Sakurai and H. Hagenmaier	2633	Formation and destruction of PCDD/PCDF during heat treatment of fly ash samples from fluidized bed incinerators

R. Weber and H. Hagenmaier	2643	PCDD/PCDF formation in fluidized bed incineration
K.-J. Shin and Y.-S. Chang	2655	Characterization of polychlorinated dibenzo- <i>p</i> -dioxins, dibenzofurans, biphenyls and heavy metals in fly ash produced from Korean municipal solid waste incinerators
Hua-Shan Tai and Chih-Ju G. Jou	2667	Application of granular activated carbon packed-bed reactor in microwave radiation field to treat phenol
A. Khodadoust, M. T. Suidan, C. M. Acheson and R. C. Brenner	2681	Solvent extraction of pentachlorophenol from contaminated soils using water-ethanol mixtures
Hsien-Wen Kuo and Hsin-Mou Lee	2695	Volatility of propoxur from different surface materials commonly found in homes

Number 12

v Contributors to this issue

L. Cox and A. Walker	2707	Studies of time-dependent sorption of linuron and isoproturon in soils
Shanshan Chou and Chihpin Huang	2719	Application of a supported iron oxyhydroxide catalyst in oxidation of benzoic acid by hydrogen peroxide
H.-L. Chiang, P. C. Chiang, Y. C. Chiang and E. E. Chang	2733	Diffusivity of microporous carbon for benzene and methyl-ethyl ketone adsorption
K. Abe and K. Tanaka	2747	Effect of Fe ³⁺ on UV-illuminated ozonation of nitrophenolic compounds
E. Zuccato, S. Calvarese, G. Mariani, S. Mangiapan, P. Grasso, A. Guzzi and R. Fanelli	2753	Level, sources and toxicity of polychlorinated biphenyls in the Italian diet
T. Iida, H. Hirakawa, T. Matsueda, J. Nagayama and T. Nagata	2767	Polychlorinated dibenzo- <i>p</i> -dioxins and related compounds: correlations of levels in human tissues and in blood
P. Guiraud, R. Steiman, L. Ait-Laydi and F. Seigle-Murandi	2775	Degradation of phenolic and chloroaromatic compounds by <i>Coprinus</i> spp.
K.-J. Geueke, A. Gessner, U. Quass, G. Bröker and E. Hiester	2791	PCDD/F emissions from heavy duty vehicle diesel engines
D. Schmitt, M. Kumke, F. Seibel and F. H. Frimmel	2807	The influence of natural organic matter (NOM) on the desorption kinetics of pyrene and naphthalene from quartz
Yang Lihong, Wang Xiaorong, Sun Hao and Zhang Haishi	2825	The effect of EDTA on rare earth elements bioavailability in soil ecosystems
A. Fadli, C. Briois, C. Baillet and J.-P. Sawerysyn	2835	Experimental study on the thermal oxidation of chlorobenzene at 575–825°C
J. C. Faucon, R. Bureau, J. Faisant, F. Briens and S. Rault	2849	Ecotoxicological endpoints in European notification procedure impact on the classification for the aquatic environment
M. A. Alawi, S. Tamimi and M. Jaghbir	2865	Storage of organochlorine pesticides in human adipose tissues of Jordanian males and females

E. J. Hoekstra, E. W. B. de Leer and U. A. Th. Brinkman	2875	Findings supporting the natural formation of trichloroacetic acid in soil
S. C. Wilson and A. A. Meharg	2885	Investigation of organic xenobiotic transfers, partitioning and processing in air-soil-plant systems using a microcosm apparatus. Part I: Microcosm
L. M. Schmidt, J. J. Delfino, J. F. Preston III and G. St. Laurent III	2897	Biodegradation of low aqueous concentration pentachlorophenol (PCP) contaminated groundwater
W. M. Davis, C. L. Erickson, C. T. Johnston, J. J. Delfino and J. E. Porter	2913	Quantitative Fourier transform infrared spectroscopic investigation of humic substance functional group composition
M. F. Kirby, P. Neall and T. Tylor	2929	EROD activity measured in flatfish from the area of the <i>Sea Empress</i> oil spill
B. M. Adair and G. P. Cobb	2951	Improved preparation of small biological samples for mercury analysis using cold vapour atomic absorption spectroscopy

Number 13

v Contributors to this issue

P. Lassen and L. Carlsen	2959	The effect of humic acids on the water solubility and water-organic carbon partitioning of fluorene and its NSO-heteroanalogues: carbazole, dibenzofuran, and dibenzothiophene
J.-S. Kim, K. Itoh, M. Murabayashi and B. A. Kim	2969	Pretreatment of the photocatalyst and the photocatalytic degradation of trichloroethylene in the gas-phase
J. L. Bonnet, P. Bogaerts and J. Bohatier	2979	Biological treatment of whey by <i>Tetrahymena pyriformis</i> and impact study on laboratory-scale wastewater lagoon process
G. Mehrtens and F. Laturnus	2995	Mixed function oxidase dependent biotransformation of polychlorinated biphenyls by different species of fish from the North Sea
M. D. Girón, R. Salto, Y. González, J. A. Girón, N. Nieto, J. L. Periago, M. D. Suárez and P. Hortelano	3003	Modulation of hepatic and intestinal glutathione S-transferases and other antioxidant enzymes by dietary lipids in streptozotocin diabetic rats
K. Tuppurainen	3015	Frontier orbital energies, hydrophobicity and steric factors as physical QSAR descriptors of molecular mutagenicity. A review with a case study: MX compounds
F. Salicis, S. Krivobok, M. Jack and J.-L. Benoit-Guyod	3031	Biodegradation of fluoranthene by soil fungi
A. Khadrani, F. Seigle-Murandi, R. Steiman and T. Vrousia	3041	Degradation of three phenylurea herbicides (chlortoluron, isoproturon and diuron) by micromycetes isolated from soil
G. M. Pastershank, Y. Kiparissis and C. D. Metcalfe	3051	Induction of hepatic ethoxyresorufin-O-deethylase (EROD) in rainbow trout (<i>Oncorhynchus mykiss</i>) exposed to 3,3',4,4'-tetrachlorodiphenyl ether by intraperitoneal injection or gavage intubation

L. Gimeno, E. Hernández, A. Rúa, R. García and I. Martín	3061	Surface ozone in Spain
A. Fromberg, M. Cleemann and L. Carlsen	3075	Review on persistent organic pollutants in the environment of Greenland and Faroe Islands
I. F. Paterson, B. Z. Chowdhry and S. A. Leharne	3095	Polycyclic aromatic hydrocarbon extraction from a coal tar-contaminated soil using aqueous solutions of nonionic surfactants
Wang Jianlong and Qian Yi	3109	Microbial degradation of 4-chlorophenol by microorganisms entrapped in carrageenan-chitosan gels
T. C. Schmidt, K. Steinbach, U. Buetehorn, K. Heck, U. Volkwein and G. Stork	3119	Synthesis of reference substances for highly polar metabolites of nitroaromatic compounds
B. Szostek, J. A. Tinklenberg and J. H. Aldstadt III	3131	A simple method for the quantitative microextraction of polychlorinated biphenyls from soils and sediments
L. Ramos, E. Eljarrat, L. M. Hernández, J. Rivera and M. J. González	3141	Levels of PCBs, PCDDs and PCDFs in commercial butter samples in Spain
J. L. Bonnet, J. Bohatier and D. Pépin	3155	Effects of cadmium on the performance and microbiology of laboratory-scale lagoons treating domestic sewage
Ruixia Liu, Hongxiao Tang and Baowen Zhang	3169	Removal of Cu(II), Zn(II), Cd(II) and Hg(II) from waste water by poly(acrylamino-phosphonic)-type chelating fiber
K. A. Halhouli, A. I. Aly and B. M. Abu-Ashour	3181	Chem gas desulfurization using methanol as a solvent and bromine or iodine as an oxidant
M. S. Tesconi, R. H. Morris and S. H. Yalkowsky	3193	A practical method for the estimation of ambient vaporization rates of compounds

Number 14

v Contributors to this issue

G. Nałęcz-Jawecki and J. Sawicki	3211	Spirotox- a new tool for testing the toxicity of volatile compounds
N. S. Battersby, D. Ciccognani, M. R. Evans, D. King, H. A. Painter, D. R. Peterson and M. Starkey	3219	An 'inherent' biodegradability test for oil products: description and results of an international ring test
K. L. E. Kaiser and S. P. Niculescu	3237	Using probabilistic neural networks to model the toxicity of chemicals to the fathead minnow (<i>Pimephales promelas</i>): a study based on 865 compounds
C. Charoy and C. R. Janssen	3247	The swimming behaviour of <i>Brachionus calyciflorus</i> (rotifer) under toxic stress. II. Comparative sensitivity of various behavioural criteria
J. C. Faucon, R. Bureau, J. Faisant, F. Briens and S. Rault	3261	Prediction of the fish acute toxicity from heterogeneous data coming from notification files
P. van Beelen and A. K. Fleuren-Kemilä	3277	A comparison between toxicity tests using single species and a microbial process

T. Backhaus and L. H. Grümme	3291	The toxicity of antibiotic agents to the luminescent bacterium <i>Vibrio fischeri</i>
K. Rehmann, K.-W. Schramm and A. A. Kettrup	3303	Applicability of a yeast oestrogen screen for the detection of oestrogen-like activities in environmental samples
W. Li, W. Z. Wu, R. B. Barbara, K.-W. Schramm and A. Kettrup	3313	A new enzyme immunoassay for PCDD/F TEQ screening in environmental samples: comparison to micro-EROD assay and to chemical analysis
S. Singh and D. K. Singh	3319	Molluscicidal activity of <i>Abrus precatorius</i> Linn. and <i>Argemone mexicana</i> Linn.
R. Rojíčková-Padrťová and B. Maršálek	3329	Selection and sensitivity comparisons of algal species for toxicity testing
C. Gundacker	3339	Tissue-specific heavy metal (Cd, Pb, Cu, Zn) deposition in a natural population of the zebra mussel <i>Dreissena polymorpha</i> Pallas
M. A. Warne, D. Osborn, J. C. Lindon and J. K. Nicholson	3357	Quantitative structure-toxicity relationships for halogenated substituted-benzines to <i>Vibrio fischeri</i> , using atom-based semi-empirical molecular-orbital descriptors
E. P. H. Best, S. L. Sprecher, S. L. Larson, H. L. Fredrickson and D. F. Bader	3383	Environmental behavior of explosives in groundwater from the Milan Army Ammunition Plant in aquatic and wetland plant treatments. Removal, mass balances and fate in ground-water of TNT and RDX
S. Rohde, G. A. Moser, O. Pöpke and M. S. McLachlan	3397	Clearance of PCDD/Fs via the gastrointestinal tract in occupationally exposed persons
H. Kaupp and M. S. McLachlan	3411	Gas/particle partitioning of PCDD/Fs, PCBs, PCNs and PAHs
K. Hustert, P. N. Moza and A. Kettrup	3423	Photochemical degradation of carboxin and oxycarboxin in the presence of humic substances and soil
R. Gatermann, J. Hellou, H. Hühnerfuss, G. Rimkus and V. Zitko	3431	Polycyclic and nitro musks in the environment: a comparison between Canadian and European aquatic biota
M. Pérez, L. I. Romero and D. Sales	3443	Anaerobic thermophilic fluidized bed treatment of industrial wastewater: effect of F:M relationship

Number 15

v Contributors to this issue

R. Margesin and F. Schinner	3463	Biodegradation of diesel oil by cold-adapted microorganisms in presence of sodium dodecyl sulfate
M. T. García, E. Campos, J. Sanchez-Leal and I. Ribosa	3473	Effect of the alkyl-chain length on the anaerobic biodegradability and toxicity of quaternary ammonium based surfactants
M. Kulovarra, S. Metsamuuronen and M. Nystrom	3485	Effects of aquatic humic substances on a hydrophobic ultrafiltration membrane
T. Iida, H. Hirakawa, T. Matsueda, S. Takenaka and J. Nagayama	3497	Polychlorinated dibenzo- <i>p</i> -dioxins and related compounds: the blood levels of young Japanese women

N. Voulvoulis, M. D. Scrimshaw and J. N. Lester	3503	Analytical methods for the determination of 9 antifouling paint booster biocides in estuarine water samples
J. L. Domingo, M. Schuhmacher, S. Granero and J. M. Llobet	3517	PCDDs and PCDFs in food samples from Catalonia, Spain. An assessment of dietary intake
K. Silex and J. T. Andersson	3529	Synthesis of Cl ₂ - to Cl ₄ -diphenylsulfides and Cl ₁ - to Cl ₃ -dibenzothiophenes
V. Garaj-Vrhovac, N. Kopjar, V. Besendorfer and D. Papes	3541	Induction of micronuclei in human lymphocytes after occupational exposure to ultrasound
U. J. Strotmann, A. Geldern, A. Kuhn, C. Gendig and S. Klein	3555	Evaluation of a respirometric test method to determine the heterotrophic yield coefficient of activated sludge bacteria
Ling Yang, Hongxia Yu, Daqiang Yin and Hongjun Jin	3571	Application of the simplified toxicity identification evaluation procedures to a chemical works effluent
G. H. Panter, R. S. Thomson, N. Beresford and J. P. Sumpter	3579	Transformation of a non-oestrogenic steroid metabolite to an oestrogenically active substance by minimal bacterial activity
J. S. Jaworska, D. Schowanek and T. C. J. Feijtel	3597	Environmental risk assessment for trisodium [S,S]-ethylene diamine disuccinate, a biodegradable chelator used in detergent applications
L. T. C. Bonten, T. C. Grotenhuis and W. H. Rulkens	3267	Enhancement of PAH biodegradation in soil by physico-chemical pretreatment
M. T. Moore, D. B. Huggett, G. M. Huddleston III, J. H. Rodgers Jr., and C. M. Cooper	3637	Herbicide effects on <i>Typha latifolia</i> (Linnaeus) germination and root and shoot development

I Contents of Volume

